

Can We Manipulate Brain Function to Improve Singing?

by Lara Levitan

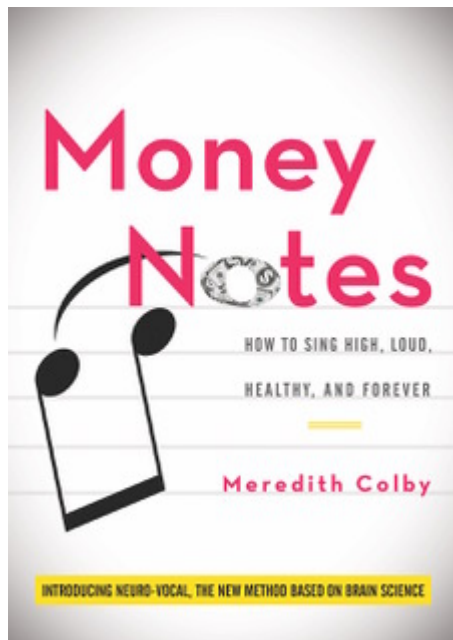
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While in a Qigong class, voice teacher [Meredith Colby](#) had a realization.

“It occurred to me that for the past ten years I’ve been teaching the same [vocal] techniques, for the same reasons, and getting predictable results. It occurred to me I had a method,” said Meredith.

After the class, Meredith revisited the thought and decided that mapping out her teaching method, which utilizes brain function in a very specific way, might benefit other voice teachers and students.

Hence, her recently published book, *Money Notes: How to Sing High, Loud, Healthy, and Forever*, (Wise Ink, 2017), was born. The book introduces the Neuro-Vocal Method, a teaching technique that uses brain science to get fast and healthy results.



Meredith, who teaches adult and teenage voice students from her studio in Deerfield, was kind enough to answer some questions about her method and the book.

Read on, and **check out her open-to-the-public [Neuro-Vocal Seminar & Masterclass at DePaul University's School of Music](#) this Saturday, January 28!** (Both singers and voice teachers can sign up as either participants or auditors, visit [MeredithColby.com](#) for more.)

How would you describe the Neural-Vocal Method (NVM) in a few sentences?

NVM exploits the innate tendencies of the brain to both steer changes in singing and be guided by those changes as they occur.

If you want to get more specific; as the singer learns to phonate (or produce vocal sounds) naturally, the cerebellum is attracted to the feeling, the somatosensory cortex learns to anticipate that feeling, and the motor cortex is thus allowed to alter the existing unified motor action plan associated with the command “sing”.

All that sounds very medical, I know. But it’s a very short neurological description of the fact that every singer already knows how to sing, and each singer gets a very specific, unique physical response to their intention to sing.

The part of your brain that houses the instructions for that response responds to your intention to sing, and it responds 100 milliseconds before you take any action. In other words, your brain is singing before your mouth is. And it’s singing in the way it already knows. So as long as you think you’re singing, it’s very difficult to change the way you sing. The trick is to stop singing so you can sing.

If that sounds confusing, [buy the book!](#)

Did you always have an interest in neurology, or was it something that arose out of your career as a singer and teacher?

I began reading “brain books” a long time ago, and just for fun. The more I read, the more I wanted to know. I didn’t have any end in mind. I just thought it was interesting.

I knew that the stuff I was teaching CCM (contemporary commercial music) singers was working, but I began to wonder why it was working, and to experiment on my students.

Did you collaborate with neurologists to hone the NVM?

No, I didn’t. I came up with NVM myself. Then I talked to three neurologists who each said things along the lines of, “Yeah, that sounds like it could be what’s going on”. I was thrilled with that response– because for a scientist that’s almost an agreement- but

even more thrilled when a neurological researcher thought it might be worth putting me in an fMRI (functional magnetic resonance imaging) machine.

The fMRI takes pictures of what your brain is doing in real time, and when he showed me the pictures of my brain doing the various exercises I teach, it was exactly what I had hoped was going on. Even better than I'd hoped, actually. I had started writing the book already, but I don't know if I would have completed it without that amazing experience.

What changes have you witnessed in students of this method?

That's sort of a "where do I start" question!

I guess the short answer is that anyone who wants it can get a healthy blended chest sound really high in their range: F5 for women, A4 for baritones, and C5 for tenors. I use the qualifier "anybody who wants it" because it can be a lot of work to change. Change is hard, and changing something that is as intimate a part of your self-image as your voice can be really challenging.

The other big change is in singers who have vocal damage – nodes, polyps, or dysphonia – or are healing after vocal surgery. Singers who have vocal damage, and who are doing nothing other than coming to their voice lessons (no speech therapy, for instance) experience vastly improved vocal health. So much so that they have surprised their laryngologists at follow-up appointments.

Is there anything harmful about the singing style of contemporary pop singers to voice students who try to emulate it?

No, there's nothing intrinsically wrong with pop singing. Singers have both learned from, and been damaged by, their own natural tendency to imitate other singers.

Jennifer Hudson, for instance, has never had a voice lesson. She simply copied what she heard, and luckily that turned out to be great vocal technique. Most singers, however, teach themselves limiting habits from the very beginning of their interest in singing—from the time they're 12 years old and trying to emulate their favorite singer who's 15 years older than them and has thousands of hours of experience.

What is a common way that singers damage their voices?

Vocal damage is almost always the result of either unhealthy vocal habits (speech habits, typically), or trauma from overuse. Singers are often gregarious personalities; they talk too much and too loudly. Add to that any other typical element such as poor

posture, dehydration, lack of sleep, or acid reflux, and you've got vocal damage in the making.

Do voice teachers need to be trained in NVM before teaching the method?

Yes. Although someone who's already teaching CCM method could probably read the book and get a feel for how to safely implement the techniques.

A teacher and studio owner in Omaha brought you on to train her voice teachers. What was that like?

That studio owner, Sharon North Jones, and I were starving artists together in Chicago in the 90s. She's been extremely successful in Omaha; her music school has over 650 students, and she has 14 teachers in voice, as well as a number of instrumental teachers.

Sharon, like all the teachers at her school, is classically trained. The overwhelming number of students at her school, however, want training in CCM technique for pop and music-theater. She and her teachers were looking for a way they could teach CCM technique with integrity. They wanted to feel confident about what they were doing, and know that what they were teaching their students would be vocally healthy in the long run. When she read my book, she asked if I would go there and teach her teachers.

I was pretty nervous – these were experienced voice teachers and singers – I knew they'd be a tough audience. But they had read the book ahead of time, so they were open and curious. They were actually a very forgiving audience, and I probably learned as much as they did.

What if you're a voice student who reads this book and wants to use the techniques, but your voice teacher has never heard of this method?

The book is talking to a working or aspiring singer. I've been told it's very user-friendly, which is what I'd intended when I wrote it. I also have videos on my site that demonstrate the exercises, and MP3 files of the piano tracks available for practice.

What's life been like since you published the book?

Not nearly as dramatic as I'd hoped! 😊

The book has helped me connect with other teachers, which is what I want to do more of. It's intentionally not an academic book, but rather a user-manual. It's my hope that other teachers will sit on my side of the table with the book, so to speak, and use NVM to help their students get a healthy CCM sound. To that end, I'm pursuing teaching groups of teachers, and hope to build a vital online community of independent voice teachers.

[In addition to the seminar and master class I'm teaching at DePaul in Chicago on January 28,] I've been in conversation with a number of schools– in Chicago, Minneapolis, Milwaukee, and Indianapolis – about offering training sessions through their institutions. Any information I have will be available at MeredithColby.com!